



COPIES OF PAPERS
ORIGINALLY FILED

43

<110> Heston, Warren D.W.
O'Keefe, Denise S.

<120> DNA Encoding the Prostate-Specific Membrane
Antigen-Like Gene and Uses Thereof

<130> D6230

<140> USSN 09/973,382
<141> 2001-10-09

<150> PCT/US00/09417
<151> 2000-04-09

<160> 38

<210> 1
<211> 1992
<212> DNA
<213> *Homo sapiens*

<220>
<223> cDNA sequence of PSMA-like gene

<400> 1

agcaaatact	cactaccaca	aataagaaca	tttccaaatc	tgatgttctg	50
aggattttta	gagcttatag	tagcaaaaag	aaaagggaaa	ttctctctga	100
gatgtccttt	tttgtaggcc	taatgacaaa	aggttgaaga	taaagttcta	150
gtactcattt	aagtgttaata	ttgaaaattg	atattaccaa	atctggaaca	200
accaatttta	aataaggaaa	gaaagacact	gtgttttcta	ggtaaaaaat	250
gcccagctgg	caggggccaa	aggagtcatt	ctctactcag	accctgctga	300
ctactttgct	cctgggggtga	agtcctatcc	agacgggttg	aatcttcctg	350
gaggtggtgt	ccagcgtgga	aatatcctaa	atctgaatgg	tgcaggagac	400
cctctcacac	caggttaccc	agcaaatgaa	tacgcttata	ggcatggaat	450
tgcagaggct	gttggtcttc	caagtattcc	tgttcatcca	gttggatact	500
atgatgcaca	gaagctccta	gaaaaaatgg	gtggctcagc	accaccagat	550
agcagctgga	gaggaagtct	caaagtgtcc	tacaatgttg	gacctggctt	600
tactggaaac	ttttctacac	aaaaagtcaa	gatgcacatc	cactctacca	650
atgaagtgac	gagaatttac	aatgtgatag	gtactctcag	aggagcagtg	700
gaaccagaca	gatatgtcat	tctgggaggt	caccgggact	catgggtgtt	750
tggtggtatt	gaccctcaga	gtggagcagc	tgttgttcat	gaaactgtga	800
ggagcttttg	aacactgaaa	aaggaagggt	ggagacctag	aagaacaatt	850
ttgtttgcaa	gctgggatgc	agaagaattt	ggtcttcttg	gttctactga	900
gtgggcagag	gataattcaa	gactccttca	agagcgtggc	gtggcttata	950
ttaatgctga	ctcatctata	gaaggaaact	acactctgag	agttgattgt	1000
acaccactga	tgtacagctt	ggtatacaac	ctaacaaaag	agctgaaaag	1050
ccctgatgaa	ggctttgaag	gcaaatctct	ttatgaaagt	tggaactaaa	1100
aaagtccttc	cccagagttc	agtggcatgc	ccaggataag	caaattggga	1150
tctggaaatg	attttgaggt	gttcttccaa	cgacttgga	ttgcttcagg	1200
cagagcacgg	tatactaaaa	attgggaaac	aaacaaattc	agcggctatc	1250
cactgtatca	cagtgtctat	gaaacatatg	agttggtgga	aaagttttat	1300

```

gatccaatgt ttaaatatca cctcactgtg gccaggttc gaggagggat 1350
ggtgtttgag ctagccaatt ccatagtgtt cccctttgat tgtcgagatt 1400
atgctgtagt tttaagaaag tatgctgaca aaatctacaa tatttctatg 1450
aaacatccac aggaaatgaa gacatacagt ttatcatttg attcactttt 1500
ttctgcagta aaaaatttta cagaaattgc ttccaagttc agcgagagac 1550
tccaggactt tgacaaaagc aacccaatat tgttaagaat gatgaatgat 1600
caactcatgt ttctggaaag agcattttatt gatccattag ggttaccaga 1650
cagacctttt tataggcatg tcattctatgc tccaagcagc cacaacaagt 1700
atgcagggga gtcattccca ggaattttatg atgctctgtt tgatattgaa 1750
agcaaagtgg acccttccaa ggcctgggga gatgtgaaga gacagatttc 1800
tgttgcagcc ttcacagtgc aggcagctgc agagactttg agtgaagtag 1850
cctaagagga ttcttttagag actctgtatt gaatttgtgt ggtatgtcac 1900
tcaaagaata ataatgggta tattgataaa ttttaaaatt ggtatatttg 1950
aaataaagtt gaatattata tataaaaaaa aaaaaaaaaa aa 1992

```

```

<210>      2
<211>     442
<212>     PRT
<213>     Homo sapiens

```

```

<220>
<223>     deduced amino acid sequence of PSMA-like
           protein

```

```

<400>      2
Met Gly Gly Ser Ala Pro Pro Asp Ser Ser Trp Arg Gly Ser Leu
           5                      10                      15
Lys Val Ser Tyr Asn Val Gly Pro Gly Phe Thr Gly Asn Phe Ser
           20                      25                      30
Thr Gln Lys Val Lys Met His Ile His Ser Thr Asn Glu Val Thr
           35                      40                      45
Arg Ile Tyr Asn Val Ile Gly Thr Leu Arg Gly Ala Val Glu Pro
           50                      55                      60
Asp Arg Tyr Val Ile Leu Gly Gly His Arg Asp Ser Trp Val Phe
           65                      70                      75
Gly Gly Ile Asp Pro Gln Ser Gly Ala Ala Val Val His Glu Thr
           80                      85                      90
Val Arg Ser Phe Gly Thr Leu Lys Lys Glu Gly Trp Arg Pro Arg
           95                     100                     105
Arg Thr Ile Leu Phe Ala Ser Trp Asp Ala Glu Glu Phe Gly Leu
          110                     115                     120
Leu Gly Ser Thr Glu Trp Ala Glu Asp Asn Ser Arg Leu Leu Gln
          125                     130                     135

```

Glu Arg Gly Val Ala Tyr Ile Asn Ala Asp Ser Ser Ile Glu Gly	140	145	150
Asn Tyr Thr Leu Arg Val Asp Cys Thr Pro Leu Met Tyr Ser Leu	155	160	165
Val Tyr Asn Leu Thr Lys Glu Leu Lys Ser Pro Asp Glu Gly Phe	170	175	180
Glu Gly Lys Ser Leu Tyr Glu Ser Trp Thr Lys Lys Ser Pro Ser	185	190	195
Pro Glu Phe Ser Gly Met Pro Arg Ile Ser Lys Leu Gly Ser Gly	200	205	210
Asn Asp Phe Glu Val Phe Phe Gln Arg Leu Gly Ile Ala Ser Gly	215	220	225
Arg Ala Arg Tyr Thr Lys Asn Trp Glu Thr Asn Lys Phe Ser Gly	230	235	240
Tyr Pro Leu Tyr His Ser Val Tyr Glu Thr Tyr Glu Leu Val Glu	245	250	255
Lys Phe Tyr Asp Pro Met Phe Lys Tyr His Leu Thr Val Ala Gln	260	265	270
Val Arg Gly Gly Met Val Phe Glu Leu Ala Asn Ser Ile Val Leu	275	280	285
Pro Phe Asp Cys Arg Asp Tyr Ala Val Val Leu Arg Lys Tyr Ala	290	295	300
Asp Lys Ile Tyr Asn Ile Ser Met Lys His Pro Gln Glu Met Lys	305	310	315
Thr Tyr Ser Leu Ser Phe Asp Ser Leu Phe Ser Ala Val Lys Asn	320	325	330
Phe Thr Glu Ile Ala Ser Lys Phe Ser Glu Arg Leu Gln Asp Phe	335	340	345
Asp Lys Ser Asn Pro Ile Leu Leu Arg Met Met Asn Asp Gln Leu	350	355	360
Met Phe Leu Glu Arg Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp	365	370	375
Arg Pro Phe Tyr Arg His Val Ile Tyr Ala Pro Ser Ser His Asn	380	385	390

Lys Tyr Ala Gly Glu Ser Phe Pro Gly Ile Tyr Asp Ala Leu Phe
 395 400 405
 Asp Ile Glu Ser Lys Val Asp Pro Ser Lys Ala Trp Gly Asp Val
 410 415 420
 Lys Arg Gln Ile Ser Val Ala Ala Phe Thr Val Gln Ala Ala Ala
 425 430 435
 Glu Thr Leu Ser Glu Val Ala
 440

<210> 3
 <211> 2653
 <212> DNA
 <213> *Homo sapiens*

<220>
 <223> nucleotide sequence of human PSMA gene

<300>
 <308> GenBank Accession No. M99487
 <309>

<400> 3
 ctcaaaagg ggcggatttc cttctccttg aggcagatgt tgcctctctc 50
 tctcgctcgg attggttcag tgcactctag aaacactgct gtggtggaga 100
 aactggaccc caggtctgga gcgaattcca gcctgcaggg ctgataagcg 150
 aggcattagt gagattgaga gagactttac cccgccgtgg tggttggagg 200
 gcgcgcagta gacgagcagc acaggcgagg gtcccgggag gccggctctg 250
 ctgcgcgca gatgtggaat ctctctcacg aaaccgactc ggctgtggcc 300
 accgcgcgcc gccgcgctg gctgtgcgct ggggcgctgg tgctggcggg 350
 tggcttcttt ctctctggct tctctctcgg gtggtttata aaatcctcca 400
 atgaagctac taacattact ccaagcata atatgaaagc atttttggat 450
 gaattgaaag ctgagaacat caagaagttc ttatataatt ttacacagat 500
 accacattta gcaggaacag aacaaaactt tcagcttgca aagcaaattc 550
 aatcccagtg gaaagaattt ggccctggatt ctggttgagc agcacattat 600
 gatgtcctgt tgtcctaccc aaataagact catcccaact acatctcaat 650
 aattaatgaa gatggaaatg agattttcaa cacatcatta tttgaaccac 700
 ctctccagg atatgaaaat gtttcggata ttgtaccacc tttcagtgtc 750
 ttctctctc aaggaatgcc agagggcgat ctagtgtatg ttaactatgc 800
 acgaactgaa gacttcttta aattggaacg ggacatgaaa atcaattgct 850
 ctgggaaaat tgtaattgcc agatatggga aagttttcag aggaaataag 900
 gttaaaaatg ccagctggc aggggccaag ggagtcattc tctactccga 950
 ccctgctgac tactttgtct ctgggggtgaa gtcctatcca gatgggttga 1000
 atcttccttg aggtggtgtc cagcgtggaa atatcctaaa tctgaatggt 1050
 gcaggagacc ctctcacacc aggttaccca gcaaatgaat atgcttatag 1100
 gcgtggaatt gcagaggctg ttgggtcttc aagtattcct gttcatccaa 1150
 ttggatacta tgatgcacag aagctcctag aaaaaatggg tggctcagca 1200

```

ccaccagata gcagctggag aggaagtctc aaagtgcctt acaatgttgg 1250
acctggcttt actggaaact tttctacaca aaaagtcaag atgcacatcc 1300
actctaccaa tgaagtgaca agaatttaca atgtgatagg tactctcaga 1350
ggagcagtgga aaccagacag atatgtcatt ctggggaggct accgggactc 1400
atgggtgttt ggtggtattg accctcagag tggagcagct gttgttcatt 1450
aaattgtgag gagcttttga acactgaaaa aggaaggggtg gagacctaga 1500
agaacaattt tgtttgcaag ctgggatgca gaagaatttg gtcttcttgg 1550
ttctactgag tgggcagagg agaattcaag actccttcaa gagcgtggcg 1600
tggcttatat taatgctgac tcatctatag aaggaaacta cactctgaga 1650
gttgattgta caccgctgat gtacagcttg gtacacaacc taacaaaaga 1700
gctgaaaagc cctgatgaag gctttgaagg caaatctctt tatgaaagtt 1750
ggactaaaaa aagtccttcc ccagagttca gtggcatgcc caggataagc 1800
aaattgggat ctggaaatga ttttgagggtg ttcttccaac gacttgggat 1850
tgcttcaggc agagcacggt atactaaaaa ttgggaaaca aacaaattca 1900
gcggctatcc actgtatcac agtgtctatg aaacatatga gttggtggaa 1950
aagttttatg atccaatgtt taaatatcac ctactgttg cccaggttcg 2000
aggagggatg gtgtttgagc tagccaattc catagtgtc ctttttgatt 2050
gtcgagatta tgctgtagtt ttaagaaagt atgctgacaa aatctacagt 2100
atttctatga aacatccaca ggaaatgaag acatacagt tatcatttga 2150
ttcacttttt tctgcagtaa agaattttac agaaattgct tccaagttca 2200
gtgagagact ccaggacttt gacaaaagca acccaatagt attaagaatg 2250
atgaatgatc aactcatgtt tctggaaaga gcattttattg atccattagg 2300
gttaccagac aggccttttt ataggcatgt catctatgct ccaagcagcc 2350
acaacaagta tgcaggggag tcattcccag gaatttatga tgctctgttt 2400
gatattgaaa gcaaagtgga cccttccaag gcctggggag aagtgaagag 2450
acagatttat gttgcagcct tcacagtgca ggcagctgca gagactttga 2500
gtgaagtagc ctaagaggat tcttttagaga atccgtattg aatttgtgtg 2550
gtatgtcact cagaaagaat cgtaatgggt atattgataa attttaaaaa 2600
tggtatatatt gaaataaagt tgaatattat atataaaaaa aaaaaaaaaa 2650
aaa

```

```

<210>      4
<211>      750
<212>      PRT
<213>      Homo sapiens

```

```

<220>
<223>      deduced amino acid sequence of PSMA protein

```

```

<400>      4
Met Trp Asn Leu Leu His Glu Thr Asp Ser Ala Val Ala Thr Ala
              5                      10                      15
Arg Arg Pro Arg Trp Leu Cys Ala Gly Ala Leu Val Leu Ala Gly
              20                      25                      30
Gly Phe Phe Leu Leu Gly Phe Leu Phe Gly Trp Phe Ile Lys Ser
              35                      40                      45
Ser Asn Glu Ala Thr Asn Ile Thr Pro Lys His Asn Met Lys Ala
              50                      55                      60

```

Phe	Leu	Asp	Glu	Leu	Lys	Ala	Glu	Asn	Ile	Lys	Lys	Phe	Leu	Tyr
				65					70					75
Asn	Phe	Thr	Gln	Ile	Pro	His	Leu	Ala	Gly	Thr	Glu	Gln	Asn	Phe
				80					85					90
Gln	Leu	Ala	Lys	Gln	Ile	Gln	Ser	Gln	Trp	Lys	Glu	Phe	Gly	Leu
				95					100					105
Asp	Ser	Val	Glu	Leu	Ala	His	Tyr	Asp	Val	Leu	Leu	Ser	Tyr	Pro
				110					115					120
Asn	Lys	Thr	His	Pro	Asn	Tyr	Ile	Ser	Ile	Ile	Asn	Glu	Asp	Gly
				125					130					135
Asn	Glu	Ile	Phe	Asn	Thr	Ser	Leu	Phe	Glu	Pro	Pro	Pro	Pro	Gly
				140					145					150
Tyr	Glu	Asn	Val	Ser	Asp	Ile	Val	Pro	Pro	Phe	Ser	Ala	Phe	Ser
				155					160					165
Pro	Gln	Gly	Met	Pro	Glu	Gly	Asp	Leu	Val	Tyr	Val	Asn	Tyr	Ala
				170					175					180
Arg	Thr	Glu	Asp	Phe	Phe	Lys	Leu	Glu	Arg	Asp	Met	Lys	Ile	Asn
				185					190					195
Cys	Ser	Gly	Lys	Ile	Val	Ile	Ala	Arg	Tyr	Gly	Lys	Val	Phe	Arg
				200					205					210
Gly	Asn	Lys	Val	Lys	Asn	Ala	Gln	Leu	Ala	Gly	Ala	Lys	Gly	Val
				215					220					225
Ile	Leu	Tyr	Ser	Asp	Pro	Ala	Asp	Tyr	Phe	Ala	Pro	Gly	Val	Lys
				230					235					240
Ser	Tyr	Pro	Asp	Gly	Trp	Asn	Leu	Pro	Gly	Gly	Gly	Val	Gln	Arg
				245					250					255
Gly	Asn	Ile	Leu	Asn	Leu	Asn	Gly	Ala	Gly	Asp	Pro	Leu	Thr	Pro
				260					265					270
Gly	Tyr	Pro	Ala	Asn	Glu	Tyr	Ala	Tyr	Arg	Arg	Gly	Ile	Ala	Glu
				275					280					285
Ala	Val	Gly	Leu	Pro	Ser	Ile	Pro	Val	His	Pro	Ile	Gly	Tyr	Tyr
				290					295					300
Asp	Ala	Gln	Lys	Leu	Leu	Glu	Lys	Met	Gly	Gly	Ser	Ala	Pro	Pro
				305					310					315

Asp	Ser	Ser	Trp	Arg	Gly	Ser	Leu	Lys	Val	Pro	Tyr	Asn	Val	Gly
				320					325					330
Pro	Gly	Phe	Thr	Gly	Asn	Phe	Ser	Thr	Gln	Lys	Val	Lys	Met	His
				335					340					345
Ile	His	Ser	Thr	Asn	Glu	Val	Thr	Arg	Ile	Tyr	Asn	Val	Ile	Gly
				350					355					360
Thr	Leu	Arg	Gly	Ala	Val	Glu	Pro	Asp	Arg	Tyr	Val	Ile	Leu	Gly
				365					370					375
Gly	His	Arg	Asp	Ser	Trp	Val	Phe	Gly	Gly	Ile	Asp	Pro	Gln	Ser
				380					385					390
Gly	Ala	Ala	Val	Val	His	Glu	Ile	Val	Arg	Ser	Phe	Gly	Thr	Leu
				395					400					405
Lys	Lys	Glu	Gly	Trp	Arg	Pro	Arg	Arg	Thr	Ile	Leu	Phe	Ala	Ser
				410					415					420
Trp	Asp	Ala	Glu	Glu	Phe	Gly	Leu	Leu	Gly	Ser	Thr	Glu	Trp	Ala
				425					430					435
Glu	Glu	Asn	Ser	Arg	Leu	Leu	Gln	Glu	Arg	Gly	Val	Ala	Tyr	Ile
				440					445					450
Asn	Ala	Asp	Ser	Ser	Ile	Glu	Gly	Asn	Tyr	Thr	Leu	Arg	Val	Asp
				455					460					465
Cys	Thr	Pro	Leu	Met	Tyr	Ser	Leu	Val	His	Asn	Leu	Thr	Lys	Glu
				470					475					480
Leu	Lys	Ser	Pro	Asp	Glu	Gly	Phe	Glu	Gly	Lys	Ser	Leu	Tyr	Glu
				485					490					495
Ser	Trp	Thr	Lys	Lys	Ser	Pro	Ser	Pro	Glu	Phe	Ser	Gly	Met	Pro
				500					505					510
Arg	Ile	Ser	Lys	Leu	Gly	Ser	Gly	Asn	Asp	Phe	Glu	Val	Phe	Phe
				515					520					525
Gln	Arg	Leu	Gly	Ile	Ala	Ser	Gly	Arg	Ala	Arg	Tyr	Thr	Lys	Asn
				530					535					540
Trp	Glu	Thr	Asn	Lys	Phe	Ser	Gly	Tyr	Pro	Leu	Tyr	His	Ser	Val
				545					550					555
Tyr	Glu	Thr	Tyr	Glu	Leu	Val	Glu	Lys	Phe	Tyr	Asp	Pro	Met	Phe
				560					565					570

<210>	6	
<211>	25	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	antisense primer designed for only amplifying the first intron of the PSMA- like gene on chromosome 11q	
<400>	6	25
gtccatataa actttcaaga atgtg		
<210>	7	
<211>	20	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	sense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exon 2)	
<400>	7	20
ctcaccta at gtcagagga		
<210>	8	
<211>	20	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	antisense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exon 2)	
<400>	8	20
agtatagtcc tcctcagatg		
<210>	9	
<211>	24	
<212>	DNA	

<213> Artificial sequence
 <220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 3)
 <400> 9
 caaagtactt ttgtgtaact ctgc 24
 <210> 10
 <211> 22
 <212> DNA
 <213> Artificial sequence
 <220>
 <221> primer_bind
 <223> antisense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 3)
 <400> 10
 cataggaaag tagttgacac gg 22
 <210> 11
 <211> 22
 <212> DNA
 <213> Artificial sequence
 <220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 4)
 <400> 11
 cctgaaggat tcattcaccc tc 22
 <210> 12
 <211> 24
 <212> DNA
 <213> Artificial sequence
 <220>
 <221> primer_bind

<223> antisense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 4)

<400> 12
 gaccctttaa ttatcggctg aaca 24

<210> 13
 <211> 22
 <212> DNA
 <213> Artificial sequence

<220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exons 5-6)

<400> 13
 atgtccaaca gtcccatgc ag 22

<210> 14
 <211> 22
 <212> DNA
 <213> Artificial sequence

<220>
 <221> primer_bind
 <223> antisense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exons 5-6)

<400> 14
 gacatgctta gtccattgta cc 22

<210> 15
 <211> 22
 <212> DNA
 <213> Artificial sequence

<220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 7)

<400>	15	
gaaccgtttg	aatgaaactg	ag
		22
<210>	16	
<211>	22	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	antisense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exon 7)	
<400>	16	
ttacccaa	atgccc	atgg
		22
<210>	17	
<211>	23	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	sense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exons 8-9)	
<400>	17	
gcagatgctc	aataagtga	atcc
		23
<210>	18	
<211>	24	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	antisense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exons 8-9)	
<400>	18	
ccagcacata	acagttactt	gatc
		24

<210>	19	
<211>	22	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	sense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exon 10)	
<400>	19	
tagatgctat	tgagtcgttt gc	22
<210>	20	
<211>	22	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	antisense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exon 10)	
<400>	20	
aaactgagac	tcagataggc tg	22
<210>	21	
<211>	22	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	sense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exon 11)	
<400>	21	
ctgggcttgg	tagtgtcctg gg	22
<210>	22	
<211>	24	
<212>	DNA	
<213>	Artificial sequence	

<220>
 <221> primer_bind
 <223> antisense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 11)

<400> 22
 gcttggcaaa caagtcctgg ctac 24

<210> 23
 <211> 22
 <212> DNA
 <213> Artificial sequence

<220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 12)

<400> 23
 tgtcgtaaat atgggtcagc tc 22

<210> 24
 <211> 22
 <212> DNA
 <213> Artificial sequence

<220>
 <221> primer_bind
 <223> antisense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 12)

<400> 24
 ttaactagac tgctgctcct ag 22

<210> 25
 <211> 22
 <212> DNA
 <213> Artificial sequence

<220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon

intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 13)

<400> 25
tggttaggaat ttagcagtg tc

22

<210> 26
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<221> primer_bind
<223> antisense oligonucleotide primer based upon
intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 13)

<400> 26
gatgctacta atgggctacc tc

22

<210> 27
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<221> primer_bind
<223> sense oligonucleotide primer based upon
intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 14)

<400> 27
cttctgggta atggacatct ag

22

<210> 28
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<221> primer_bind
<223> antisense oligonucleotide primer based upon
intronic sequences of the PSMA genomic
clone used to amplify the corresponding
regions of the PSMA-like gene (exon 14)

<400> 28
 caatcccaca ctgaattcag tg 22

 <210> 29
 <211> 22
 <212> DNA
 <213> Artificial sequence

 <220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 15)

<400> 29
 agaatggggt ttagtttaat gg 22

 <210> 30
 <211> 21
 <212> DNA
 <213> Artificial sequence

 <220>
 <221> primer_bind
 <223> antisense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 15)

<400> 30
 tgagtcactt tttggagtca g 21

 <210> 31
 <211> 22
 <212> DNA
 <213> Artificial sequence

 <220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exons 16-17)

<400> 31
 ttgtaagcta tccctataag ag 22

<210>	32	
<211>	22	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	antisense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exons 16-17)	
<400>	32	
agttcagcaa cagtcatgtt ag		22
<210>	33	
<211>	22	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	sense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exon 18)	
<400>	33	
gggtggtcct gaaaccaatc cc		22
<210>	34	
<211>	21	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<221>	primer_bind	
<223>	antisense oligonucleotide primer based upon intronic sequences of the PSMA genomic clone used to amplify the corresponding regions of the PSMA-like gene (exon 18)	
<400>	34	
gtgatattac agaaaggagt c		21
<210>	35	
<211>	22	
<212>	DNA	
<213>	Artificial sequence	

<220>
 <221> primer_bind
 <223> sense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 19)

<400> 35
 atccaggaat tgcagagtgc tc 22

<210> 36
 <211> 22
 <212> DNA
 <213> Artificial sequence

<220>
 <221> primer_bind
 <223> antisense oligonucleotide primer based upon
 intronic sequences of the PSMA genomic
 clone used to amplify the corresponding
 regions of the PSMA-like gene (exon 19)

<400> 36
 ttcagtttta atccataggg ag 22

<210> 37
 <211> 24
 <212> DNA
 <213> Artificial sequence

<220>
 <221> primer_bind
 <223> sense primer (exon 10) used for performing
 PCR on cDNAs from various tissues

<400> 37
 acagatatgt cattctggga ggtc 24

<210> 38
 <211> 24
 <212> DNA
 <213> Artificial sequence

<220>
 <221> primer_bind
 <223> antisense primer (exon 16) used for
 performing PCR on cDNAs from various
 tissues

<400> 38
actgtgatac agtggatagc cgct

24